s18QUIZ: EXP LOG (QUIZ v237)
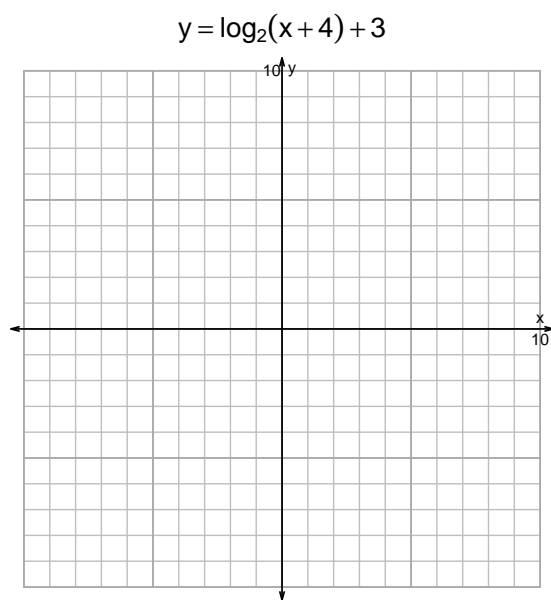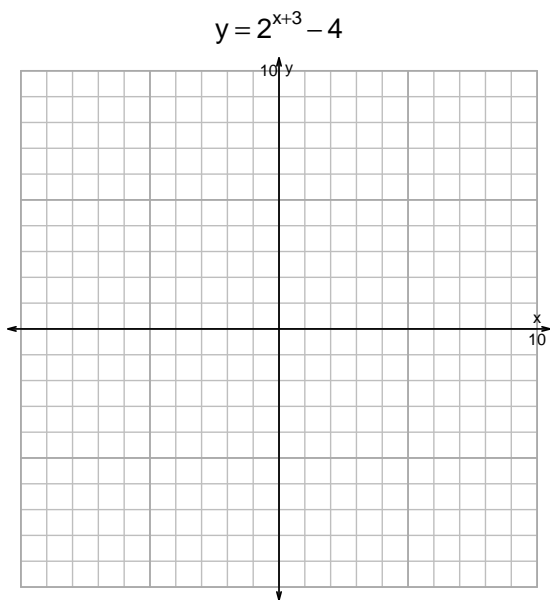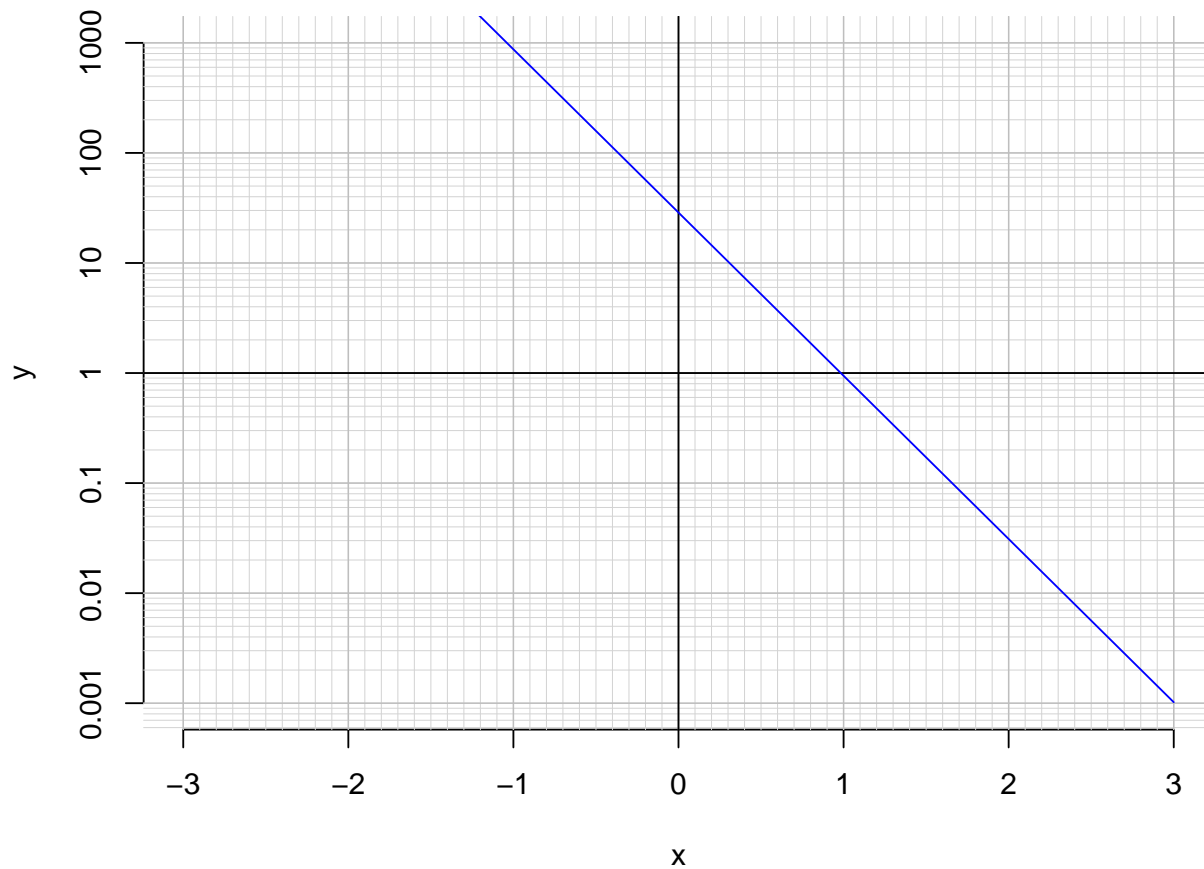
1. Graph $y = 2^{x+3} - 4$ and $y = \log_2(x+4) + 3$ on the grids below. Also, draw any asymptotes with dotted lines.

$$y = 2^{x+3} - 4$$

$$y = \log_2(x+4) + 3$$

2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$23 = \left(\frac{3}{5}\right) \cdot 2^{4t/7}$$

3. An exponential function $f(x) = 28.7 \cdot e^{-3.41x}$ is graphed below on a semi-log plot.

a. Using the plot above, evaluate $f(-0.3)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(0.004)$.